

1.1.3 HIGH SPEED TRAIN ALTERNATIVE

The Authority has defined a statewide high speed train (HST) system capable of speeds in excess of 200 miles per hour (mph) (320 kilometers per hour [km/h]) on dedicated, fully grade-separated tracks, with state-of-the-art safety, signaling, and automated train control systems. State of the art high speed steel-wheel-on-steel-rail technology is being considered for the system that would serve the major metropolitan centers of California, extending from Sacramento and the San Francisco Bay Area, through the Central Valley, to Los Angeles and San Diego. Figure 1.1.3-1(a) and 1.1.3-1(b) show the High Speed Train Alternative for the Bay Area-to-Merced Corridor.

The High-Speed Train Alternative includes several corridor and station options. A steel-wheel on steel-rail, electrified train, primarily on exclusive right-of-way with small portions of the route on shared track with other rail is planned. Conventional “non-electric” improvements are also being considered along the existing LOSSAN rail corridor from Los Angeles to San Diego. The train track would be either at-grade, in an open trench or tunnel, or on an elevated guideway, depending on terrain and physical constraints.

For purposes of comparative analysis, the HST corridors will be described from station-to-station within each region, except where a by-pass option is considered when the point of departure from the corridor will define the end of the corridor segment.

The Bay Area-to-Merced corridor can be broadly divided into three regional segments. Each segment has several alternative alignments for all or a portion of the length of the segment. Each segment may be further subdivided for analyzing and reporting potential impacts. The various segment options, along with station locations, are described below.

1.1.3.1 Segment 1 – Merced to San José

In this segment, all alignments would be on an exclusive guideway with separate tracks for high-speed trains and would connect to the Sacramento-to-Bakersfield high-speed train corridor. Two separate corridors are being studied:

Corridor 1A. This corridor would run between Merced and San José, via Pacheco Pass and Gilroy. Two options for the alignment are being considered:

- Gilroy Option: This alignment would extend from Merced through the San Joaquin Valley and Pacheco Pass, through Gilroy, and then north along the Caltrain/Union Pacific Railroad (UPRR) rail corridor. Within this option, two suboptions are under consideration – the alignment of each is a reflection of the design speed.

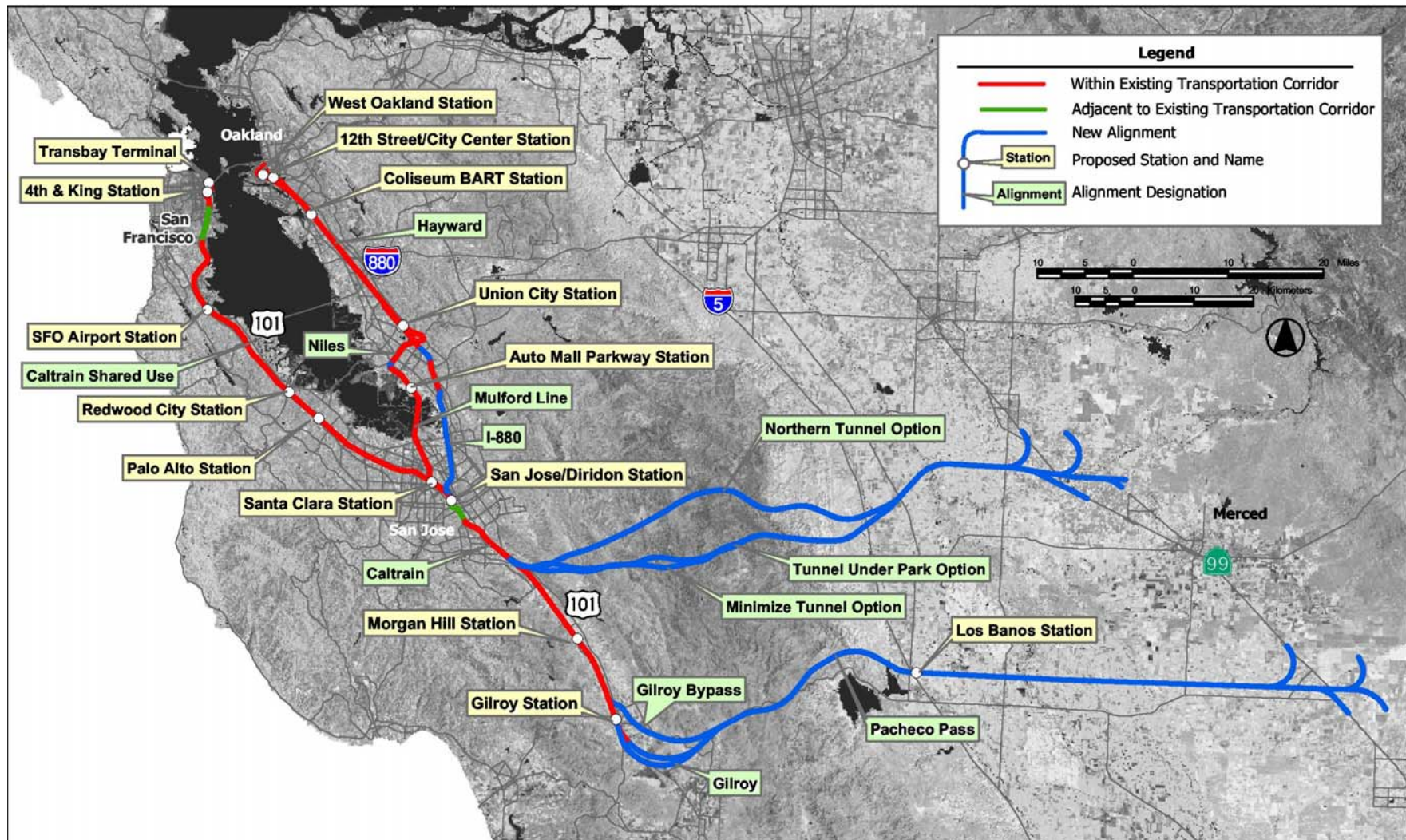
Stations would include Los Baños (near I-5) in the San Joaquin Valley, Gilroy (near the existing Caltrain Station), and the existing San José (Diridon) Station.

- Gilroy Bypass Option: This alignment would extend from Merced through the San Joaquin Valley and Pacheco Pass and then north along the Caltrain/UPRR rail corridor.

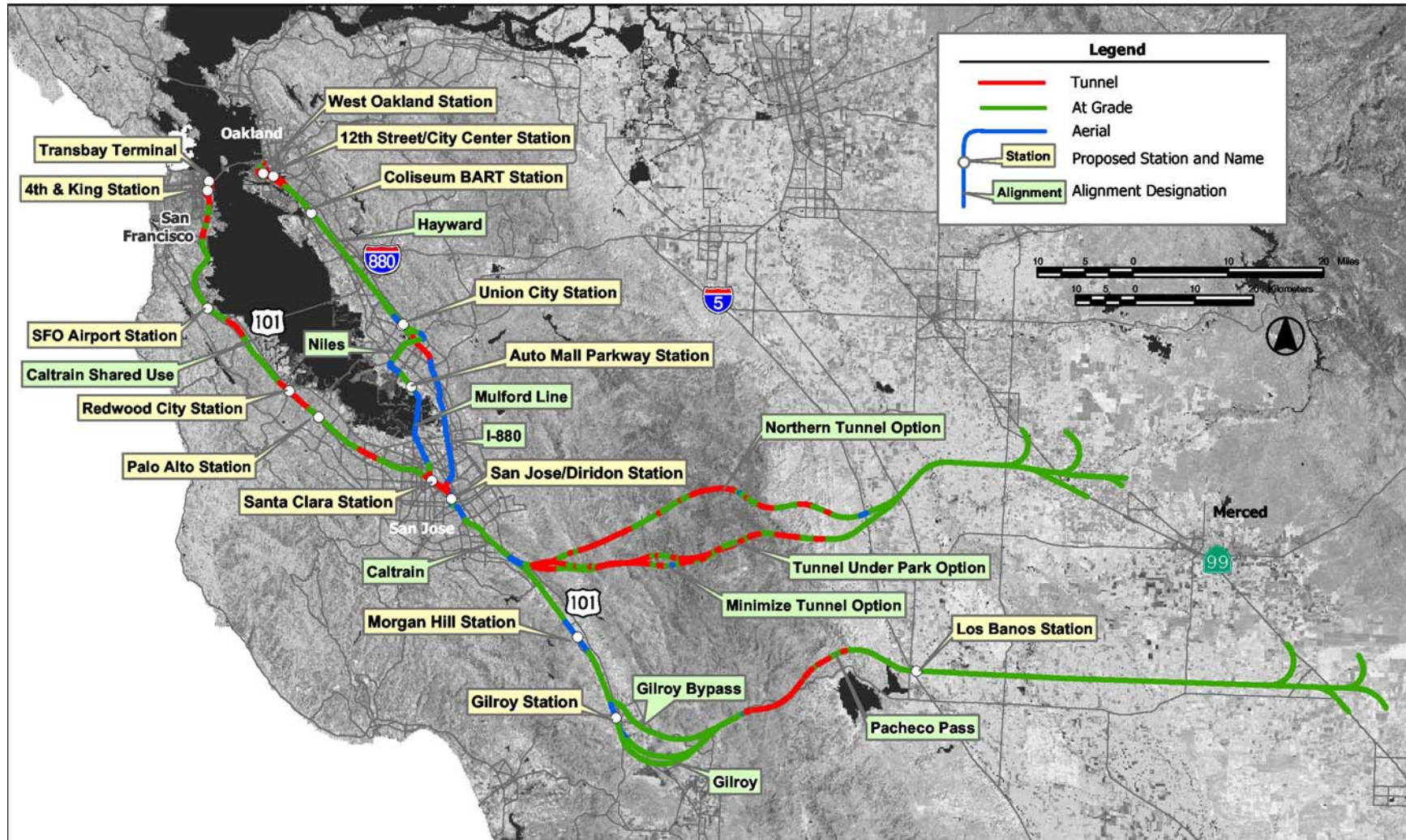
Stations would include Los Baños (near I-5) in the San Joaquin Valley, Morgan Hill (near the existing Caltrain Station), and the existing San José (Diridon) Station.



**Figure 1.1.3-1 (a):
High Speed Rail Alternative – Bay Area-to-Merced Region**



**Figure 1.1.3-1 (b):
High Speed Rail Alternative – Bay Area-to-Merced**



Corridor 1B. This corridor would run between Merced and San José, via Atwater and across the Diablo Mountain Range and would include one station – at the existing San José (Diridon) Caltrain Station. Three options for the alignment are being considered:

- Northern Tunnel Option: This alignment would emanate from the BNSF rail corridor or the UPRR corridor near the town of Atwater, north of Merced. The alignment would extend west across the San Joaquin Valley passing north of the town of Newman. The tracks would cross the Diablo Mountain Range in a series of tunnels, passing north of Henry Coe State Park. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.
- Tunnel Under Park Option: This alignment is similar to the Northern Tunnel Option except that the segment through the Diablo Mountain Range would cross Henry W. Coe State Park primarily in tunnel. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.
- Minimize Tunnel Option: This alignment is similar to the Tunnel Under Park Option except that the segment through the Diablo Mountain Range would cross Henry W. Coe State Park primarily at-grade. The alignment then would connect with the Caltrain/UPRR rail corridor north of SR 85.

1.1.3.2 Segment 2 –San José to San Francisco

There is one alignment being considered in this segment; it would provide for high-speed trains sharing tracks with Caltrain commuter trains. The entire alignment would be grade-separated, and all Caltrain stations would have four tracks or by-pass tracks.

Stations would include an optional station at Santa Clara; a station in either Palo Alto or Redwood City; a station in Millbrae near the San Francisco International Airport; and in San Francisco, a station at Fourth and King streets and at the lower level of the proposed new Transbay Terminal.

1.1.3.3 Segment 3 –San José to Oakland

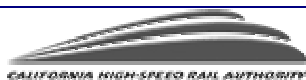
There are two options under consideration for the alignment in this segment.

- I-880 Option: From San José, this alignment would follow north along I-880 and then transition to UPRR's Hayward rail line.

Stations would include the planned Warm Springs Bay Area Rapid Transit (BART) Station in Fremont or the Union City BART Station; the Oakland Airport/Coliseum BART Station; and either the West Oakland Station or the 12th Street/City Center Station in Oakland.

- Mulford Line Option: From San José, this alignment would travel north along UPRR's Mulford rail line to the UPRR's Niles Line and then onto UPRR's Hayward line.

Stations would include the Auto Mall Parkway Station or the Union City BART Station; the Oakland Airport/Coliseum BART Station; and in Oakland, either the West Oakland Station or the 12th Street/City Center Station.



2.0 SECTION 4(F) AND 6(F) EVALUATION METHODOLOGY

The 4(f) and 6(f) evaluation methodology for this program-level EIR/EIS is focused on a review of the potential for impacts to historical, cultural, park and wildlife and waterfowl resources that are identified from existing information along corridors for each of the alternatives (high-speed train and modal alternatives) and around stations. The potential for impacts to 4(f) and 6(f) protected properties for each of these alternatives is compared with the No-Project Alternative. For this programmatic document the primary goal of this analysis is the identification of resources, not the assessment of the severity of the potential take. The following table (Table 2.0-1) outlines the study areas for each of the disciplines that constitute the 4(f) and 6(f) analysis.

Table 2.0-1
Study Areas for Section 4(f) and 6(f) Analysis

Discipline	4(f) and 6(f) Resources	HSR Study Area	No-Project/Modal Alternative
Cultural Resources. (National Register of Historic Places (NRHP) Listed and Eligible Areas)	Historic, historical archeological and prehistoric resources. (Given the level of detail required for this programmatic document, these resources will be identified at an "area" level and not at the individual resource level.)	<=500' from each side of centerline in non-urban areas. <=100' from centerline in urban areas.	100' from existing highways and existing airport property boundaries
Land Use	Parks, recreational lands	.25 miles from centerline. <=1000' <=500' <=150'	.25 miles from centerline. <=1000' <=500' <=150'
Biological	Refuges and conservation lands	<=1,000' around stations and on both sides of the corridor in developed areas. <0.25 miles around stations and on both sides of ROW in	<=1,000' around stations and on both sides of the corridor in developed areas. <0.25 miles around stations and on both sides of ROW in

Discipline	4(f) and 6(f) Resources	HSR Study Area	No-Project/Modal Alternative
		undeveloped areas. <=0.5 miles around stations and on both sides of the corridors in sensitive areas (lagoons and wildlife corridors).	undeveloped areas. <=0.5 miles around stations and on both sides of the corridors in sensitive areas (lagoons and wildlife corridors).

Using the study area defined above to identify possible resources, the 4(f) and 6(f) analysis will:

- Identify 4(f) and 6(f) resources that have the potential to be “used” by the Modal or HST Alternative. A use would occur if the physical features of a proposed alignment (i.e. track work) directly intersected with a portion or all of a 4(f) or 6(f) resource. For the purpose of this programmatic document, any resource that is within 150’ of the centerline will be considered to be “used.” This 150’ study area represents the most likely area that would constitute the Right of Way (ROW) boundary. This area would have the highest probability of disruption to 4(f) and 6(f) resources. While the actual ROW for the project will vary, this 150’ buffer is sufficient for this analysis.
- Identify 4(f) and 6(f) resources that have the potential to be “constructively used.” A constructive use would occur if a resource were affected as a result of its proximity to the proposed alignment. Possible constructive uses could include but may not be limited to increased noise, dust, or vibration at the location of the 4(f) and 6(f) resource. For the purpose of this programmatic document, it is assumed that noise impacts will be the most likely determinant of constructive use. Consequently, any resource that is between 150’ and 900’ of the centerline will be considered to be “constructively used.” It is important to note that the study area for Cultural Resources (National Register of Historic Places (NRHP) Listed and Eligible Areas) of 500’ is smaller than the 900’ buffer for the 4(f) analysis. This is due to the assumption that historic resources would not be affected by noise outside of the 500’ cultural study area. Additionally, since this study area is based on the noise analysis, the study area is not applicable where the alignment is in a tunnel.
- Identify the most probable (obvious) measures to minimize harm or avoid a 4(f) and 6(f) resource altogether.

Both uses and constructive uses would constitute 4(f) and 6(f) use and have the potential to be temporary (limited to the construction period) or permanent.

The results of the above analysis will be summarized in the following text and detailed tables.

3.0 BAY AREA-TO-MERCED SECTION 4(F) AND 6(F) ANALYSIS

3.1 SUMMARY OF ANALYSIS AND FINDINGS

There would likely be effects on 4(f) properties with the Bay-Area-to-Merced Corridor HST and Modal alternative alignments and options as evaluated herein. These are not “fatal flaws” if an adequate case can be made in accordance with 4(f) regulations and guidance that avoidance alternatives are not prudent and feasible. The requirements of Section 4(f) are particularly relevant for articulating the advantages and disadvantages of the Bay-Area-to-Merced Corridor HST alignment options. The impacts of the various Bay-Area-to-Merced Corridor alternatives/ alignments/ options on 6(f) resources are not a critical discriminating factor.

HST Alternative

The key finding for the Bay-Area-to-Merced Corridor HST Alternative is that the Minimize Tunnel Option of the northern alignment would affect Henry Coe State Park. Pursuant to the requirements of Section 4(f), this option could therefore be constructed only if it could be demonstrated that all of the other HST alignment options that avoid the park are not prudent and feasible. Thus, it would have to be demonstrated that the added costs of additional tunneling to avoid the park while following the northern alignment would not be prudent and/or that the tunneling would not be feasible. It would also have to be demonstrated that the additional travel time and distance involved to follow either of the Pacheco Pass alignments would also not be prudent. And even if the case could be made so that the Minimize Tunnel Option could be constructed, it would be extremely difficult to mitigate the impact of this option, as the HST would enter the park in a particularly quiet and undisturbed area where people come to enjoy a wilderness experience.

Another important finding is that the Mulford Line alignment option of the Bay-Area-to-Merced HST Alternative has potential to affect the Don Edwards San Francisco Bay National Wildlife Refuge. This is because the existing railroad right-of-way (ROW) may not be consistently wide enough for HST. Therefore this alignment option could be constructed only if it could be demonstrated that all of the alignment options that avoid the refuge are not prudent and feasible, as described above for the Northern Alignment options. It also appears that the need to cross the Hayward Fault weighs against the Mulford Line alignment, and this drawback may constitute a (non-4(f)) “fatal flaw.” If the case can be made that there is no prudent and feasible alternative to the use of the refuge, impacts would have to be mitigated through replacement, enhancement or creation of wetlands and habitat areas to ensure no net loss of wetlands and minimize harm to the affected species.

It appears that the Bay-Area-to-Merced Corridor HST alternatives and options can avoid all of the other major (that is, state or regional) 4(f) resources that have been identified.

There are numerous local parks that are in very close proximity of the proposed Bay-Area-to-Merced Corridor HST alignment and options, however, HST would be in the existing railroad corridor as it passes most of these. Therefore, the potential for 4(f) use, which is based on proximity to the proposed HST alignment in this methodology, is more apparent than real.

Another issue that is apparent from the tables is that the Pacheco Pass alignment option that goes through Gilroy would potentially affect substantial numbers of historic resources, which are protected under Section 4(f). Use would be reduced because HST would stay within the existing UPRR ROW or next to it on the east side through downtown Gilroy; this would avoid takes of historic properties. Portions of the alignment may be elevated, however, which could result in proximity impacts (visual effects) or constructive use of the 4(f) resources. The Gilroy Bypass alignment option would avoid such

impacts, but it might be difficult to demonstrate prudence for this option if it resulted in poorer intermodal connections and reduced service to the travel shed south of Gilroy.

Modal Alternative

It is anticipated that alignment variations – widening to one or the other side of the existing highway – would avoid use of the major 4(f) resources that are in close proximity to the Bay-Area-to-Merced Corridor Modal Alignment segments. There are eight to 10 local parks, however, in close proximity to the Modal Alternative alignments for which there appear to be no alignment variations to avoid 4(f) use. These would not constitute “fatal flaws” for the Modal Alternative, as the alignment constraints suggest it would likely be possible to demonstrate the lack of prudent and feasible avoidance alternatives.

No-Project Alternative

The No-Project Alternative appears to have much less likelihood to impact 4(f) protected resources than either the Modal Alternative or the HST Alternative. The No-Project Alternative would not address the purpose of and need for the project, however.

Methodological Limitations

The Section 4(f)/6(f) evaluation was based on existing databases and maps, not on field investigations. The proximity of 4(f) and 6(f) resources may be overestimated based on the scale of the maps used, or the number of proximate resources could be over- or underestimated if the maps are out of date. The methodology and data are nonetheless adequate for making valid comparisons among alternatives and alignment options at this stage of the studies. Once preferred alignment options are identified, field studies would be useful to verify the conclusions determined herein.

3.2 SUMMARY OF POTENTIAL FOR IMPACTS ON SECTION 4(F) AND 6(F) RESOURCES

Table 3.2-1 presents the No-Project, Modal and HST alternatives, by segment, and indicates the number of Section 4(f) and 6(f) resources that could be affected by these alternatives, as follows:

High potential for these resources to be used by the alternative: This category includes all 4(f) or 6(f) resources that are within 150' of the centerline of any alternative. For the HSR stations, there are resources within (immediately adjacent or close to) the perimeters of the stations and for the Modal Alternative; there are resources adjacent to the highways. Thus there would be **high** potential for use of such 4(f) resources immediately adjacent to the existing highway facilities or the perimeters for the proposed HSR stations.

Medium potential for these resources to be used by the alternative: This category includes all 4(f) or 6(f) resources that are more than 150' and less than or equal to 500' from the centerline of any alternative. There is also potential for constructive use of these resources at this distance from the alternatives.

Low potential for these resources to be used by the alternative: This category includes all 4(f) or 6(f) resources that are more than 500' and less than or equal to 1000' from the centerline of any alternative. There is still some potential for constructive use of these resources at this distance from the alternatives.

No potential: There is no potential for these resources to be used or constructively used by the alternative. That is, these resources are more than 1000' from the centerline and too far away from the alternatives to anticipate actual or constructive use effects.

For the Bay Area to Merced Corridor, these classifications have been refined for those portions of the HST alignment located within existing rail ROW. Specifically, when the HSR alignment falls within existing CalTrain or Mulford Line rights-of-way, the likelihood of 4(f) and 6(f) use is diminished since the HST tracks and facilities are expected to be located wholly within the existing CalTrain and Mulford Line rail rights-of-way except as noted². In the case of such segments, we consider the resources that are apparently touching or very close to the HSR Alignment or station boundaries ($\leq 500'$) as having only 'Medium' potential for impact. Any resources that are apparently more than 500', but less than or equal to 1000' from the centerline are considered as having 'Low' potential for impact.

Table 3.2-1 presents the 4(f) and 6(f) resources that could be affected (H, M or L) by the alternatives. The table also gives the known historical resources within 500' of the centerline. It is important to note that the distance of individual resources to the centerline was not identified at this level of study and the table reports the aggregate number of resources within 500' of the centerline. The overall ranking of ('H', 'M' or 'L') is for a particular segment, and was derived from the relative percentage of historic development for each alternative segment and consideration of the number of known historical resources, as well as the preparers' (JRP Historical) knowledge of the area and is not based on individual distances from centerline as for the 4(f) and 6(f) resources. The ranking methodology is described in further detail in Section 3.4. Therefore, an entry of 0-H, 5-M, 0-L for US 101 in the SF to San Jose segment of the Modal Alternative shows that the overall ranking of the SF to San Jose segment is 'M', based on the historic development of the segment, and that there are five resources identified within 500' of the centerline.

TABLE 3.2-1 Summary Of Potential Impacts On Section 4(F) And 6(F) Resources For Bay Area To Merced Region			
	Section 4 (f) Parks/Recreational Resources (H, M,L)³	Section 6 (f) Water Conservation Fund Properties (H, M,L)	Known Historical Resources Within 500' of Centerline and the Overall Ranking of the Segment (H, M, L)⁴
No-Project	US 101 : 3-H, 1-M, 2-L I-880 : 1-H, 2-M, 2-L SR 152 : 0-H, 0-M, 0-L I-80 : 0-H, 0-M, 1-L I-580 : 0-H, 0-M, 1-L 4-H, 3-M, 6-L	US 101 : 0-H, 0-M, 0-L I-880 : 0-H, 0-M, 0-L SR 152 : 0-H, 0-M, 0-L I-80 : 1-H, 0-M, 0-L I-580 : 0-H, 0-M, 0-L 1-H, 0-M, 0-L	Estimated as equivalent to Modal Alternative for historic architectural resources (as per the 'Cultural Resources Technical Evaluation Report')

² The only exception is the part of the HST Mulford Line Alignment (for the Oakland to San Jose Segment) near the Don Edwards SF Bay National Refuge where the tracks will not be located wholly within the Mulford Line ROW. Hence the earlier categorization of impacts will be used.

³ Less than 150' = 'High', Greater than 150', but less than or equal to 500' is 'Medium', Clearly greater than 500' and less than or equal to 1000' is 'Low.'

If HST would be in existing Rail ROW (existing CalTrain or Mulford Line rights-of-way), the chances of 4(f) and 6(f) impact are diminished. Hence in that case, if distance from the centerline is less than or equal to 500', the potential for impact is only 'Medium' and if clearly greater than 500' and less than or equal to 1000', the potential for impact is 'Low.'

⁴ Gives the total number of resources identified within 500' of the centerline. The overall ranking of ('H', 'M' or 'L') is for a particular segment, and was derived from the relative percentage of historic development for each alternative segment and consideration of the number of known historical resources, as well as the preparers' (JRP Historical) knowledge of the area and is not based on individual distances from centerline as for the 4(f) and 6(f) resources. The ranking methodology is described in further detail in Section 6.4.

TABLE 3.2-1
Summary Of Potential Impacts On Section 4(F) And 6(F) Resources For Bay Area To Merced Region

	Section 4 (f) Parks/Recreational Resources (H, M,L) ³	Section 6 (f) Water Conservation Fund Properties (H, M,L)	Known Historical Resources Within 500' of Centerline and the Overall Ranking of the Segment (H, M, L) ⁴
Modal	US 101 : 22-H, 5-M, 11-L	US 101 : 0-H, 0-M, 0-L	SF/Oakland to San Jose
	I-880 : 11-H, 7-M, 8-L	I-880 : 0-H, 0-M, 0-L	US 101 : 0-H, 5-M, 0-L
	SR 152 : 1-H, 0-M, 0-L	SR 152 : 0-H, 0-M, 0-L	I-880 : 0-H, 7-M, 0-L
	I-80 : 4-H, 3-M, 13-L	I-80 : 1-H, 0-M, 0-L	I-80 : 0-H, M-6, 0-L
	I-580 : 4-H, 0-M, 4-L	I-580 : 0-H, 0-M, 0-L	I-580 : 0-H, M-6, 0-L
			Modal Corridor Bridges: 0-H, 271-M, 0-L
			Modal Airports: 0-H, 6-M, 0-L
			San Jose – Merced
			(US 101 & SR 52): 0-H, 0-M, 21-L
			Modal Corridor Bridges (includes Bridge structures such as overpasses, interchanges, etc.): 0-H, 0-M, 26-L
	42-H, 15-M, 36-L	1-H, 0-M, 0-L	Modal Airports: 0-H, 0-M, 0-L
HST Corridor, Segments & Station Options			
<i>San Jose to San Francisco</i>			
Alignments	0-H, 23-M, 8-L	0-H, 0-M, 1-L	285-H, 0-M, 0-L
Stations			
-Transbay Terminal	in tunnel	in tunnel	in tunnel
-4 th and King	in tunnel	in tunnel	in tunnel
-Millbrae	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
-Redwood City	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
-Palo Alto	0-H, 1-M, 1-L	0-H, 0-M, 0-L	
-Santa Clara	0-H, 0-M, 1-L	0-H, 0-M, 0-L	
<i>San Jose to Oakland</i>			
Alignments			
- Hayward/I-880	6-H, 6-M, 5-L	1-H, 0-M, 1-L	230-H, 0-M, 0-L
- Hayward/ Niles/ Mulford	3-H, 12-M, 10-L	1-H, 0-M, 1-L	249-H, 0-M, 0-L
Stations			
-West Oakland	in tunnel	in tunnel	
-12 th St/City Center	in tunnel	in tunnel	
-Coliseum Bart Station	0-H, 0-M, 2-L	0-H, 0-M, 0-L	
-Union City	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
Fremont(AutoMall Pkway)	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
<i>San Jose to Merced</i>			
Alignments			

TABLE 3.2-1 Summary Of Potential Impacts On Section 4(F) And 6(F) Resources For Bay Area To Merced Region			
	Section 4 (f) Parks/Recreational Resources (H, M,L) ³	Section 6 (f) Water Conservation Fund Properties (H, M,L)	Known Historical Resources Within 500' of Centerline and the Overall Ranking of the Segment (H, M, L) ⁴
-CalTrain/Gilroy Bypass/Pacheco Pass	0-H, 5-M, 14-L	0-H, 0-M, 1-L	108-H, 0-M, 0-L
-Caltrain/Gilroy Pacheco Pass	0-H, 5-M, 12-L	0-H, 0-M, 1-L	354-H, 0-M, 0-L
Northern Tunnel Option	0-H, 0-M, 4-L	0-H, 0-M, 0-L	0-H, 0-M, 10-L
Tunnel Under Park Option	0-H, 0-M, 4-L	0-H, 0-M, 0-L	0-H, 0-M, 12-L
Minimize Tunnel Option	1-H, 0-M, 4-L	0-H, 0-M, 0-L	0-H, 0-M, 12-L
Stations			
-San Jose (Diridon)	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
-Morgan Hill	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
-Gilroy	0-H, 0-M, 0-L	0-H, 0-M, 0-L	
-Los Banos	0-H, 0-M, 0-L	0-H, 0-M, 0-L	

Among the various alignment options considered, the Bay Area to Merced HST Alignment Option that would result in the maximum/most use of 4(f) resources consists of the San Francisco-San Jose Segment, the Oakland to San Jose (I-880 option) Segment and the Minimize Tunnel Option for the Northern Alignment. This alignment would result in eight resources with high potential for impact, 29 with medium potential for impact and 19 with low potential for impact.

The Bay Area to Merced Alignment Option that would result in the least use of 4(f) resources consists of the San Francisco-San Jose Segment, the Oakland to San Jose (Mulford/Niles option) Segment and the Northern Tunnel or the Tunnel Under Park Segment for the Northern Alignment. There would be four, 35 and 14 resources with high, medium and low potential for impact respectively.

For the 6(f) resources, the worst-case scenario for the Bay Area to Merced Alignment has one resource with high potential for impact and two resources with low potential for impact. This scenario will occur if the following alignment options are chosen for the Bay Area to Merced HST Alignment – the San Francisco-San Jose segment, the Oakland to San Jose (either I-880 or the Mulford/Niles option) segment and either of the Pacheco Pass options.

The Bay Area to Merced alignment option that would result in the least use of 6(f) resources consists of the San Francisco-San Jose segment, the Oakland to San Jose (either I-880 or the Mulford/Niles option) Segment and any of the Northern Alignment Options. For this scenario, there would be one resource with high potential for impact and one resource with low potential for impact.

For historical resources, the alternatives were compared by the number of resources identified within 500' of the centerline for each segment along with the overall ranking of the segment (explained earlier in this section). The worst-case scenario consists of 888 resources falling within segments with overall ranking of 'high.' This corresponds to the following alignments – the San Francisco-San Jose Segment, the Oakland to San Jose (Nile/Mulford Option) Segment and the Pacheco Pass Option (Through Gilroy Option).

Selection of an alignment with the San Francisco-San Jose segment, the Oakland to San Jose (I-880 Option) Segment and the Northern Tunnel Option results in least effects to the historic resources. For this alignment option, there are 515 resources falling within segments with overall ranking of 'high' and 10 resources identified for segments with an overall ranking of 'low.'

3.3 PUBLICLY OWNED PARKS, RECREATIONAL LANDS AND WILDLIFE AND WATERFOWL REFUGES

Existing publicly owned parks, recreation lands and wildlife and waterfowl refuges along the alignments of the alternatives in the Bay Area-To-Merced study area were identified based on the following sources:

- AAA maps
- Engineering Drawings for HSR Alternative
- Mapping in the 2002 Thomas Brothers Guide for San Francisco, San Mateo and Santa Clara Counties.

Section 4(f) and 6(f) resources in the study area include:

- Federally owned/managed property including National Forests.
- State owned/managed property including State Parks.
- County owned/managed property including regional parks, trails, community centers and other resources serving countywide needs.
- Local jurisdiction (city) resources including mini or pocket parks, neighborhood parks, community centers and other publicly owned and operated recreation facilities and resources.
- Information on 6(f) resources⁵ in San Mateo and Santa Clara Counties.

As defined in the methodology section, Section 4(f) and 6(f) protected resources within 0.25 mile of the centerline of each alignment or from each project feature were identified. Based on the data sources existing publicly owned parks, recreation lands and wildlife and waterfowl refuges along the alignments and in the vicinity of project features are summarized in Table 3.3-1. The table lists the project segments and features and the Section 4(f) and 6(f) resources with potential for 'High', 'Medium', 'Low' or 'No' impacts, as defined in Section 3.2. The historic/cultural resources that could be affected by the alternatives are presented separately in Section 3.4 (Table 3.4-1).

Table 3.3-1 summarizes probable measures to minimize harm to the resources. For any 4(f) resource where use cannot be avoided, some kind of replacement or enhancement of the 4(f) resource would be required.⁶ The measures for constructive use impacts focus on measures to reduce noise, consistent with the findings of the noise study, and to reduce visual impacts, consistent with the aesthetics and visual quality report, which could include noise/visual screening. These measures could result in additional adverse impacts on those resources. For example, noise walls could result in adverse visual impacts.

⁵ Source : Parsons Brinckerhoff, San Francisco

⁶ Also see proposed Draft Nationwide Section 4(f) Evaluation and Proposed Determination for Federal-Aid Transportation Projects that have a Net Benefit to Section 4(f) Property.

The identification and implementation of measures to minimize harm at each resource need to be conducted in consultation with the agencies of jurisdiction to ensure that measures to minimize harm do not adversely affect the values of the resources. For 6(f) resources, the only acceptable compensation measure is replacement, in size and function, of the 6(f) lands affected.

Figure 3.3-1 shows the different HST alignment segments and options and identifies the end of alignment options (for Northern Alignment and Pacheco Pass Options) that are discussed in Table 3.3-1.

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced						
		Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction)Use <u>High, Medium, or Low</u> ⁷	Probable Measures to Minimize Harm
NO-PROJECT ALTERNATIVE						
US 101 Corridor						
Regional/State Parks	Coyote Point County Rec Area – San Mateo Co	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate	
	Local Parks					
US 101 Corridor From SF To SFO	N/A	N/A	N/A	N/A	N/A	
US 101 Corridor From SFO To Redwood City	Village Park – Burlingame	>0.25	mile	No potential for use due to distance from centerline.	None	
	Laguna Park – Burlingame	>0.25	mile	No potential for use due to distance from centerline.	None	
	Bayside Park – Burlingame	<1000	feet	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate	
	Washington Park – Burlingame	>0.25	mile	No potential for use due to distance from centerline.	None	
	San Mateo Municipal Golf Course – San Mateo County	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate	
	Martin Luther King Park – San Mateo - 6(f)	>1000	feet	No potential for use due to distance from centerline.	None	
	Laureola Park - Belmont	>0.25	mile	No potential for use due to distance from centerline.	None	
	Mezes Park – Redwood City	>0.25	mile	No potential for use due to distance from centerline.	None	
	Andrew Spinas Park - Redwood City	<1000	mile	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate	
US 101 Corridor From Redwood City To I-880	Kelly Park - Menlo Park	>100	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate	
	Flood Park – Menlo Park	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate	

⁷ Less than 150' = 'High', Greater than 150', but less than or equal to 500' is 'Medium', if clearly greater than 500' and less than or equal to 1000' is 'Low.'

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Bell Street Park- San Mateo Co	>1000	feet	No potential for use due to distance from centerline.	None
I-880 Corridor					
	Local Parks				
I-880 Corridor From 1880 To San Jose	N/A	N/A	N/A	N/A	N/A
I-880 Corridor From San Jose to Gilroy	N/A	N/A	N/A	N/A	N/A
I-880 Corridor From I-80 to I-238	N/A	N/A	N/A	N/A	N/A
I-880 Corridor From I-238 to Fremont/Newark	San Andreas Park – Fremont	<500	feet	Medium potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Town Estates Park – Fremont	>0.25	mile	No potential for use due to distance from centerline.	None
	Lowry Park – Fremont	>500	feet	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Northgate Community Park – Fremont	~0.25	mile	No potential for use due to distance from centerline.	None
	Deep Creek Park – Fremont	>0.25	mile	No potential for use due to distance from centerline.	None
	Crandall Creek Park – Fremont	>0.25	mile	No potential for use due to distance from centerline.	None
	Patterson Park – Fremont	<500	mile	Medium potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Cabrillo Park- Fremont	<1000	feet	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Birch Grove Park – Newark	~0.25	mile	No potential for use due to distance from centerline.	None
	Eucalyptus Grove Park – Newark	>0.25	mile	No potential for use due to distance from centerline.	None
I-880 Corridor From Fremont/Newark to US 101	Marshall Park – Fremont	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Rix Park – Fremont	~0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1						
Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced						
		Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction)Use High, Medium, or Low 7	Probable Measures to Minimize Harm
	Sunny Hills Golf Center – Fremont		>0.25	mile	No potential for use due to distance from centerline.	None
I-80 Corridor						
	Local Parks					
I-80 Corridor	Berkeley Aquatic Park – Berkeley - 6(f)	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function	
	Carquinez Strait Trail – Crockett	<0.5	mile	No potential for use due to distance from centerline.	None	
	Alexander Park – Crockett	>0.25	mile	No potential for use due to distance from centerline.	None	
	Patwin Park – Dixon	<1000	feet	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate	
	Northwest Park – Dixon	~0.5	mile	No potential for use due to distance from centerline.	None	
I-580 Corridor						
	Local Parks					
I-580 Corridor	Meek Park – Hayward	~1000	feet	Low potential for constructive use due to distance from centerline.	Visual/noise screening as appropriate	
	Springtown Golf Course – Livermore	<0.25	mile	No potential for use due to distance from centerline.	None	
-	-	-	-	-	-	
MODAL ALTERNATIVE						
US 101 Corridor						
Federal Parks	Don Edwards San Francisco Bay National Wildlife Refuge	>1	mile	No potential for use due to distance from centerline.	None	
Regional/State Parks	Coyote Point County Rec Area – San Mateo Co -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate	
	Local Parks					
US 101 Corridor - From SF To SFO	Jackson Playground – San Francisco - 6(f)	>1000	feet	No potential for use due to distance from centerline.	None	
	Potrero Hill Rec Center – San Francisco -	>1000	feet	No potential for use due to distance from centerline.	None	

Table 3.3-1					
Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use <u>High, Medium, or Low</u> ⁷	Probable Measures to Minimize Harm
	Potrero Del Sol Park – San Francisco -	>100	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Precita Park – San Francisco -	<0.5	mile	No potential for use due to distance from centerline.	None
	Bernal Hts Park – San Francisco -	>1000	feet	No potential for use due to distance from centerline.	None
	Silver Terrace Playground – San Francisco -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Portola Rec Center – San Francisco -	<0.25	mile	No potential for use due to distance from centerline.	None
	Bayview Playground – San Francisco -	<0.5	mile	No potential for use due to distance from centerline.	None
	Bayview Park- San Francisco -	< 1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	7th Ave Park – San Bruno -	< 500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Lions Field Park –San Bruno -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Marina Vista Park – San Bruno -	<100	feet	High potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
US 101 - SFO to Redwood City	Bayside Park – Millbrae -	~ 500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Bayfront Park – Millbrae -	>0.25	mile	No potential for use due to distance from centerline.	None
	Village Park – Burlingame -	>0.25	mile	No potential for use due to distance from centerline.	None
	Laguna Park – Burlingame -	>0.25	mile	No potential for use due to distance from centerline.	None
	Bayside Park – Burlingame -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Washington Park – Burlingame -	>0.25	mile	No potential for use due to distance from centerline.	None
	Victoria Park- Burlingame -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	San Mateo Municipal Golf Course – San Mateo County -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Harbor View Park – San Mateo -	>0.25	feet	No potential for use due to distance from centerline.	None
	Martin Luther King Park – San Mateo - 6(f)	>1000	feet	No potential for use due to distance from centerline.	None
	Shore View Park – San Mateo -	>0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Bayside Park/Joinville Park – San Mateo -	>0.25	mile	No potential for use due to distance from centerline.	None
	Parkside Aquatic Park – San Mateo -	>0.25	mile	No potential for use due to distance from centerline.	None
	Fiesta Meadows Park – San Mateo -	<100	mile	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Lakeshore Park- San Mateo -	>1000	feet	No potential for use due to distance from centerline.	None
	Bay Meadows Golf Course & Racetrack – San Mateo -	>1000	feet	No potential for use due to distance from centerline.	None
	Los Prados Park – San Mateo -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Casandria Park/Laurie Meadows Park – San Mateo -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Belmont Sports Complex – Belmont -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Odonnell Park – Belmont -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Laureola Park - Belmont -	>0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Mezes Park – Redwood City -	>0.25	mile	No potential for use due to distance from centerline.	None
	Andrew Spinas Park - Redwood City -	<1000	mile	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
US101 - Redwood City to I-880	Kelly Park - Menlo Park -	>100	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Flood Park – Menlo Park -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Bill Street Park- San Mateo Co -	>1000	feet	No potential for use due to distance from centerline.	None
	Baylands Nature Preserve- San Mateo Co - 6(f)	>0.5	mile	No potential for use due to distance from centerline.	None
	Palo Alto Municipal Golf Course – Palo Alto -	>0.25	mile	No potential for use due to distance from centerline.	None
	John Lucas Greer Park – Palo Alto -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Baylands Nature Preserve – Palo Alto -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Seale Park – Palo Alto -	>0.25	mile	No potential for use due to distance from centerline.	None
	Ramos Park – Palo Alto -	>0.25	mile	No potential for use due to distance from centerline.	None
	Sunnyvale Municipal Golf Course – Sunnyvale -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Orchard Gardens Park – Sunnyvale -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Columbia Park – Sunnyvale	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Lakewood Park – Sunnyvale	~0.25	mile	No potential for use due to distance from centerline.	None
US 101 - I-880 to San Jose	Watson Park – San Jose -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate

	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet	Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Plata Arroyo Park – San Jose -	>0.25 mile	No potential for use due to distance from centerline.	None
	Thunderbird Golf Course – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Prusch Park – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Windmill Springs Park – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Dove Hill Park – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Ramble Wood Park – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Coyote Creek Park - San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Great Oaks Park – San Jose -	<150 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Silver Leaf Park - San Jose -	>500 feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Metcalf Park – San Jose -	<500 feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Coyote Creek Park – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Riverside Golf Course – San Jose -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
US 101 - San Jose to Gilroy	Nordstrom Park – Morgan Hill -	>0.25 feet	No potential for use due to distance from centerline.	None
	San Ysidro Park- Gilroy -	<100 feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Forest Street Park – Gilroy -	>0.25 mile	No potential for use due to distance from centerline.	None
	Butcher Park- Gilroy -	<1000 feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1					
Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
I-880 Corridor					
National	Don Edwards San Francisco Bay National Wildlife Refuge	>1	mile	No potential for use due to distance from centerline.	Visual/noise screening as appropriate
Regional/State Parks	Martin Luther King Jr. Regional Shoreline – Oakland -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Ardenwood Regional Preserve – Fremont -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
Local Parks					
I-880 Corridor From I-80 to I-238	Ernie Raimodl Park – Oakland -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Jefferson Square Rec Center – Oakland -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Harrison Railroad Park – Oakland -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Lake Merritt Channel Park – Oakland-	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Vantage Point Park – Oakland -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Oakland Alameda C Coliseum Complex – Oakland -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Brookfield Village Park – Oakland -	<0.25	mile	No potential for use due to distance from centerline.	None
	Warden Ave Park – San Leandro -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Sobrante Park – San Leandro -	>0.25	mile	No potential for use due to distance from centerline.	None
	Cleveland Park – San Leandro -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Cherry Grove Park – San Leandro -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Pacific Recreation Complex – San Leandro -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Unnamed Park - San Leandro -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Floresta Park - San Leandro -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Washington Manor Park - San Leandro	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
I-880 Corridor From I-238 to Fremont	Cherry Land Park – Hayward -	>0.25	mile	No potential for use due to distance from centerline.	None
	Cannery Park – Hayward -	>0.25	mile	No potential for use due to distance from centerline.	None
	Centennial Park – Hayward - 6(f)	>0.25	mile	No potential for use due to distance from centerline.	None
	Longwood Park – Hayward -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Kenneth Birchfield Mem Park – Hayward -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Southgate Park – Hayward -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Eldridge Park – Hayward -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Weekes Community Park – Hayward -	>0.25	mile	No potential for use due to distance from centerline.	None
	Palma Ceia Park – Hayward -	~0.25	mile	No potential for use due to distance from centerline.	None
	Ruus Park – Hayward -	~0.25	mile	No potential for use due to distance from centerline.	None
	San Andreas Park – Fremont -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Town Estates Park – Fremont -	>0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Lowry Park – Fremont -	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Northgate Community Park – Fremont -	~0.25	mile	No potential for use due to distance from centerline.	None
	Deep Creek Park – Fremont -	>0.25	mile	No potential for use due to distance from centerline.	None
	Crandall Creek Park – Fremont -	>0.25	mile	No potential for use due to distance from centerline.	None
	Patterson Park – Fremont -	<500	mile	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Cabrillo Park- Fremont -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Birch Grove Park – Newark -	~0.25	mile	No potential for use due to distance from centerline.	None
	Swiss Park – Newark -	>0.25	mile	No potential for use due to distance from centerline.	None
	Eucalyptus Grove Park – Newark -	>0.25	mile	No potential for use due to distance from centerline.	None
	Azeveda Park – Fremont -	>0.25	mile	No potential for use due to distance from centerline.	None
I-880 Corridor From Fremont/ to US 101	Marshall Park – Fremont -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Rix Park – Fremont -	~0.25	mile	No potential for use due to distance from centerline.	None
	Sunny Hills Golf Center – Fremont -	>0.25	mile	No potential for use due to distance from centerline.	None
	Dixon Landing Park – Milpitas -	>0.25	mile	No potential for use due to distance from centerline.	None
	Hall Memorial Park – Milpitas -	>0.25	mile	No potential for use due to distance from centerline.	None
	Starlite Park – Milpitas -	~500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Pinewood Park – Milpitas -	>150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	San Jose Municipal Golf Course -	<0.5	mile	No potential for use due to distance from centerline.	None
SR-152 Corridor					

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
Regional/State Parks	San Luis Regional Reservoir State Recreation Area	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
I-80 Corridor					
Regional/State Parks	Point Isabel Regional Shoreline -	>0.25	mile	No potential for use due to distance from centerline.	None
	Lagoon Valley Regional Park – Vacaville -	~300	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
Local Parks					
I- 80 Corridor	Berkeley Aquatic Park – Berkeley - 6(f)	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function
	James Kenney Rec Center – Berkeley -	>0.25	mile	No potential for use due to distance from centerline.	None
	University Park – Albany -	>0.25	mile	No potential for use due to distance from centerline.	None
	Golden Gate Fields Racetrack – Albany -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Middle School Park – Albany -	>0.25	mile	No potential for use due to distance from centerline.	None
	Albany Hill Park – Albany -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Central Park – Richmond -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Crescent Park – Richmond -	>0.25	mile	No potential for use due to distance from centerline.	None
	Booker Anderson Eastshore Park -	>0.25	mile	No potential for use due to distance from centerline.	None
	Castro Park – El Cerrito -	>0.25	mile	No potential for use due to distance from centerline.	None
	Plaza Park – Richmond -	>0.25	mile	No potential for use due to distance from centerline.	None
	Abraham Braxton Park - -Richmond -	~500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1
Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f)
Recreation Resources for Bay Area To Merced

	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Fern Canyon Trail Park – El Cerrito	>0.25	mile	No potential for use due to distance from centerline.	None
	John F Kennedy Park –Richmond -	<0.5	mile	No potential for use due to distance from centerline.	None
	Mira Vista Park – Richmond -	~1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Tiller Park- Richmond -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Alvarado Park – Richmond -	~0.25	mile	No potential for use due to distance from centerline.	None
	Fairmead Park – Richmond -	<0.5	mile	No potential for use due to distance from centerline.	None
	Hilltop Green Park – Richmond -	~0.25	mile	No potential for use due to distance from centerline.	None
	Stewart Draw Park –Pinole -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Ohlone Park – Hercules -	~500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Refugio Valley Park –Hercules -	~0.25	mile	No potential for use due to distance from centerline.	None
	Lefty Gomez Ballfield Complex – Rodeo –	<0.5	mile	No potential for use due to distance from centerline.	None
	Carquinez Strait Trail – Crockett -	<0.5	mile	No potential for use due to distance from centerline.	None
	Alexander Park – Crockett -	>0.25	mile	No potential for use due to distance from centerline.	None
	Carquinez Park – Vallejo -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Beverly Hills Park – Vallejo -	>0.25	mile	No potential for use due to distance from centerline.	None
	Norman C King S Vallejo Community Park- Vallejo -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Unnamed Park – Vallejo -	>0.25	mile	No potential for use due to distance from centerline.	None
	Hanns Memorial Park- Vallejo -	>0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Joe Mortara Golf Course – Vallejo -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Fairfield Linear Park – Fairfield -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Alan Witt Park- Fairfield -	<0.5	mile	No potential for use due to distance from centerline.	None
	Mankas Park- Fairfield -	>0.25	mile	No potential for use due to distance from centerline.	None
	Hillview Park – Fairfield -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Vacaville Community Center- Vacaville –	>0.25	mile	No potential for use due to distance from centerline.	None
	Alamo School Park – Vacaville -	>0.25	mile	No potential for use due to distance from centerline.	None
	Green Tree Golf Course – Vacaville -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Patwin Park – Dixon -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Northwest Park – Dixon -	~0.5	mile	No potential for use due to distance from centerline.	None
	Wiegand Park – Dixon -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Central Park – Davis -	~0.5	mile	No potential for use due to distance from centerline.	None
	Playfields Park – Davis -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Walnut Park – Davis -	<0.5	mile	No potential for use due to distance from centerline.	None
	Willowcreek Park – Davis -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Mace Ranch District Park – Davis -	>0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Pioneer Park – Davis -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	El Macero Country Club Golf Course – Davis -	<0.5	mile	No potential for use due to distance from centerline.	None
I-580 Corridor					
Regional Parks	Don Castro Regional Recreational Area – Castro Valley -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
Local Parks					
I-580 Corridor	Meek Park – Hayward -	~1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Edendale Park – Hayward -	>0.25	mile	No potential for use due to distance from centerline.	None
	Ashland Park – Hayward -	~0.25	mile	No potential for use due to distance from centerline.	None
	Carlos Bee Park – Hayward -	<0.5	mile	No potential for use due to distance from centerline.	None
	Earl Warren Park – Castro Valley -	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Independent Park – Castro Valley -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Dublin Sports Grounds – Dublin -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Fairlands Park – Pleasanton -	>0.25	mile	No potential for use due to distance from centerline.	None
	Meadows Park – Pleasanton -	<0.5	mile	No potential for use due to distance from centerline.	None
	Las Positas Golf Course – Livermore -	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Maitland R. Henry Park – Livermore -	~0.25	mile	No potential for use due to distance from centerline.	None
	Livermore Downs Park – Livermore -	~0.25	mile	No potential for use due to distance from centerline.	None
	Vista Meadows Park – Livermore -	>0.25	mile	No potential for use due to distance from centerline.	None
	Springtown Golf Course – Livermore -	<0.25	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Bill Clark Park – Livermore -	~ 1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Altamont Speedway – Alameda Co -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
HST CORRIDOR AND STATION OPTIONS BAY AREA TO MERCED ALIGNMENT⁸					
Caltrain Corridor Alignment Segment					
Federal Parks	Don Edwards San Francisco Bay National Wildlife Refuge	>1	mile	No potential for use due to distance from centerline.	None
State and Regional Parks	San Bruno Mountain State or County Park - (at closest pt)	0.1 mi	mile	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
Local Parks					
CalTrain Alignment - From San Francisco to Santa Clara	Esprit Park – SF	>150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Potrero Hill Rec Center – SF - tunnel under	Tunnel		No potential for use since the alignment is in a tunnel.	None
	Bay View Playground – San Francisco	>1000	feet	No potential for use due to distance from centerline.	None
	Visitation Valley Playground - 6(f)	>0.25 mi	mile	No potential for use due to distance from centerline.	None
	Unnamed park	>0.12mi	mile	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Oyster Pt Park – So San Fran - 6(f)	>0.5 mi	mile	No potential for use due to distance from centerline.	None
	Francisco Park – Brisbane	>0.12 mi	mile	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Firth Park – Brisbane	>0.25 mi	mile	No potential for use due to distance from centerline.	None

⁸ If HST would be in existing Rail ROW (existing CalTrain or Mulford Line rights-of-way), the chances of 4(f) and 6(f) impact are diminished. Hence in that case, if distance from the centerline is less than or equal to 500', the potential for impact is only 'Medium' and if clearly greater than 500' and less than or equal to 1000', the potential for impact is 'Low.'

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
CalTrain Alignment - From San Francisco to Santa Clara (continued)	Bayshore Circle Park – San Bruno	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Herman Street Park – San Bruno	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Posey Park – San Bruno	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Lions Field Park – San Bruno	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Green Hills Park – Millbrae	>0.25	mile	No potential for use due to distance from centerline.	None
	Central Park – Millbrae	~0.5	mile	No potential for use due to distance from centerline.	None
	Bayside Manor Park – Millbrae	>1000	feet	No potential for use due to distance from centerline.	None
	Rotary Park – Millbrae	<0.25	mile	No potential for use due to distance from centerline.	None
	Village Park – Burlingame	>150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Laguna Park – Burlingame	>150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Ray Park – Burlingame	~0.25	mile	No potential for use due to distance from centerline.	None
	Washington Park – Burlingame	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Poplar Creek Golf Course – San Mateo	<1	mile	No potential for use due to distance from centerline.	None
	Martin Luther King Park – San Mateo - 6(f)	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function
	De Anza Historical Area – San Mateo	>0.5	mile	No potential for use due to distance from centerline.	None
	Gateway Park – San Mateo	>0.5	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use	Probable Measures to Minimize Harm
				High, Medium, or Low ⁷	
	Central Park – San Mateo	>1000	feet	No potential for use due to distance from centerline.	None
	Trinta Park – San Mateo	>150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Bay Meadows Golf Course & Racetrack – San Mateo	<100	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Beresford Park – San Mateo	>0.5	mile	No potential for use due to distance from centerline.	None
CalTrain Alignment - From San Francisco to Santa Clara (continued)	Hillsdale Park – San Mateo	<0.5	mile	No potential for use due to distance from centerline.	None
	Indian Springs Park – San Mateo	>0.5	mile	No potential for use due to distance from centerline.	None
	Fiesta Meadows Park – San Mateo	>0.5	mile	No potential for use due to distance from centerline.	None
	Laurie Meadows Park – Belmont	<0.5	mile	No potential for use due to distance from centerline.	None
	Alexander Park – Belmont	>1000	feet	No potential for use due to distance from centerline.	None
	O'Donnell Park – Belmont	>1000	feet	No potential for use due to distance from centerline.	None
	Twin Pines Park – Belmont -	~0.25	mile	No potential for use due to distance from centerline.	None
	Cedar St Park – San Carlos -	~1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Sheldon Arguello Park – San Carlos - 6(f)	~0.67	feet	No potential for use due to distance from centerline.	None
	Laureolia Park – San Carlos -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Wellesley Crescent Park -	>1000	feet	No potential for use due to distance from centerline.	None
	Jardin de Ninos Park – Redwood City -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Burton Park – Redwood City -	<0.25	mile	No potential for use due to distance from centerline.	None
	Wellesley Crescent Park – Redwood City -	~1000	feet	No potential for use due to distance from centerline.	None
	Mezes Park – Redwood City -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Stafford Park – Redwood City -	<1	mile	No potential for use due to distance from centerline.	None
	Hoover Park – Redwood City -	<0.5	mile	No potential for use due to distance from centerline.	None
	Andrew Spinass Park – Redwood City -	~0.8	mile	No potential for use due to distance from centerline.	None
	Red Morton Community Park – Redwood City -	<1	mile	No potential for use due to distance from centerline.	None
	Hawes Park – Redwood City -	~0.6	mile	No potential for use due to distance from centerline.	None
	Holbrook Palmer Park – Atherton -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
CalTrain Alignment - From San Francisco to Santa Clara (continued)	Fremont Park – Menlo Park -	<0.5	mile	No potential for use due to distance from centerline.	None
	Nealon Park – Menlo Park -	<0.5	mile	No potential for use due to distance from centerline.	None
	Burgess Park – Menlo Park	<0.25	mile	No potential for use due to distance from centerline.	None
	El Camino Park – Palo Alto -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Cogswell Plaza – Palo Alto -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Johnson Park – Palo Alto -	<1000	feet	No potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Scott Park – Palo Alto -	<0.25	mile	No potential for use due to distance from centerline.	None
	Peers Park – Palo Alto -	<0.25	mile	No potential for use due to distance from centerline.	None
	Bowden Park – Palo Alto -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Boulevard Park – Palo Alto -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Robles Park – Palo Alto -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Rengstorff Park – Mountain View -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Rex Manor Park – Mountain View -	~300	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Crittendon School Park – Mountain View -	~0.85	mile	No potential for use due to distance from centerline.	None
	Stevenson Park – Mountain View -	~1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Eagle Park- Mountain View -	<0.5	mile	No potential for use due to distance from centerline.	None
	Whisman Park – Mountain View -	<0.5	mile	No potential for use due to distance from centerline.	None
	Creekside Park – Mountain View -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Landels Park – Mountain View -	<1000	feet	No potential for use due to distance from centerline.	Visual/noise screening as appropriate
CalTrain Alignment - From San Francisco to Santa Clara (continued)	Sylvan Park – Mountain View -	<0.5	mile	No potential for use due to distance from centerline.	None
	Sunnyvale Municipal Golf Course -	~0.75	mile	No potential for use due to distance from centerline.	None
	Washington Park – Sunnyvale -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Las Palms Park – Sunnyvale	~.85	mile	No potential for use due to distance from centerline.	None
	Murphy Historic Park – Sunnyvale -	>0.67	mile	No potential for use due to distance from centerline.	None
	Fair Oaks Park – Sunnyvale -	<0.67	mile	No potential for use due to distance from centerline.	None
CalTrain Alignment - From Santa Clara To San Jose	Bracher Park – Santa Clara -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Lafayette Park –	~215	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Machado Park – S.C. -	<0.67	mile	No potential for use due to distance from centerline.	None
	Marsalli Park – Santa Clara -	<100	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Fremont Park – S.C. -	>0.5	mile	No potential for use due to distance from centerline.	None
	Civic Center Park – S.C.	<0.5	mile	No potential for use due to distance from centerline.	None
	Warburton Park – S.C.	<0.5	mile	No potential for use due to distance from centerline.	None
	Bowers Park – S.C. -	>0.5	mile	No potential for use due to distance from centerline.	None
CalTrain Alignment - From San Jose To Connection with Northern Alignment	Walnut Park/Guadalupe Gardens -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Biebrach Park – San Jose -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	San Jose Arena – San Jose	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Metcalf Park – San Jose -	<0.5	mile	No potential for use due to distance from centerline.	None
	Coyote Creek Park – San Jose	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
CalTrain Alignment – From Connection with Northern Alignment To Connection with Gilroy Bypass	Riverside Golf Course – San Jose -	~0.25	mile	No potential for use due to distance from centerline.	None
	Fuller Park – San Jose -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	River Glen Park – San Jose –	<0.5	mile	No potential for use due to distance from centerline.	None
	Solari Park Community Center -	<0.5	mile	No potential for use due to distance from centerline.	None
	Danna Rock Park (Houndshaven) -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Edenvale Garden Park (Canyon Trail Way) -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Chyonweth M.L. Park -	~0.25	mile	No potential for use due to distance from centerline.	None
	Silver Leaf Park -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Los Paseos Park -	~0.5	mile	No potential for use due to distance from centerline.	None
	Coyote Parkway Lake -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Galvan Park - Morgan Hill -	<0.5	mile	No potential for use due to distance from centerline.	None
	Morgan Hill Community Park - 6(f)	>0.5	mile	No potential for use due to distance from centerline.	None
	Silvera Park – Morgan Hill -	~0.25	mile	No potential for use due to distance from centerline.	None
	Diana Park - Morgan Hill -	<0.5	mile	No potential for use due to distance from centerline.	None
	Olympic Community Park	<0.5	mile	No potential for use due to distance from centerline.	None
	Paradise Park	>0.9	mile	No potential for use due to distance from centerline.	None
	Las Animas Park - 6(f)	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function
	San Ysidro Park – Gilroy -	<0.5	mile	No potential for use due to distance from centerline.	None
Near CalTrain Alignment - Gilroy Bypass	Forest Street Park - Gilroy -	~700		Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Butcher Park - Gilroy -	<1000		Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	San Felipe Lake -	<1000		Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
Near CalTrain Alignment - Through Gilroy Option	Forest Street Park - Gilroy Station	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Butcher Park - Gilroy -	~0.25	mile	No potential for use due to distance from centerline.	None
	Gavilan College Golf Course -	~1	mile	No potential for use due to distance from centerline.	None
	Christmas Hill Park - Gilroy - 6(f)	~0.85	mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use	Probable Measures to Minimize Harm
				High, Medium, or Low ⁷	
From Gilroy Bypass To East End of Alignment	Pacheco reservoir	<0.5	mile	No potential for use due to distance from centerline.	None
	Cottonwood Creek Wildlife Area (Pacheco Pass)	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	San Luis Reservoir -	~1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	ONeill Forebay <1000' - Los Banos	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Volta Wildlife Area (near Henry Miller Avenue) - Los Banos Station -	~0.63	mile	No potential for use due to distance from centerline.	None
	Los Banos Wildlife Area (on Henry Miller Avenue, Los Banos) -	<150	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	End of Alignment (Option 2)				
	Berenda Reservoir	~0.15	mile	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	End of Alignment (Option 3)				
	Berenda Reservoir -	<0.15	mile	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
Mulford/Niles Alignment Segments					
Regional Parks	⁹ Don Edwards San Francisco Bay Wildlife Refuge – Traverse on Existing Rail ROW -	< 150		High potential for use due to distance from centerline.	Visual/noise screening as appropriate

⁹ HST Mulford Alignment cannot stay within the established Mulford Line ROW through Don Edwards San Francisco Bay Wildlife Refuge, hence the potential for impact is "High".

Table 3.3-1							
Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced							
		Sections 4 (f) and 6(f) Recreation Resources Within 900 feet		Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Ardenwood Regional Preserve – Mulford Line -	~2	mile	No potential for use due to distance from centerline.		None	
	Coyote Hills Regional Park – Mulford Line -	~3.2	mile	No potential for use due to distance from centerline.		None	
	Hayward Regional Shoreline – Niles -	~3.2	mile	No potential for use due to distance from centerline.		None	
	Santa Clara Golf and Tennis Club – traverses (direct hit, existing rail line)	Direct Hit		Medium potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	Local Parks						
Mulford/Niles Alignment – (Union City to Santa Clara)	Seven Hills Park -	<3000	feet	No potential for use due to distance from centerline.		None	
	Arroyo Park -	<1500	feet	No potential for use due to distance from centerline.		None	
	Quarry Lakes Land Bank –	~1200	feet	No potential for use due to distance from centerline.		None	
	California Nursery Historical Park -	<100	feet	Medium potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	Niles Community Center and Park -	<1000	feet	Low potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	Vallejo Mill Historical Park -	<600	feet	Low potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	Vallejo Mill Park -	<1800	feet	No potential for use due to distance from centerline.		None	
	Shinn Historical Park -	<100	feet	Medium potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	Portion of Quarry Lakes Land Bank	<150	feet	Medium potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
Mulford/Niles Alignment – (Union City to Santa Clara)	Centerville Community Center and Park	<2500	feet	No potential for use due to distance from centerline.		None	
	Birch Grove Park -	<2500	feet	No potential for use due to distance from centerline.		None	
	Cabrillo Park -	<2500	feet	No potential for use due to distance from centerline.		None	
	Civic Center Park - Santa Clara	<300	feet	Medium potential for use or constructive use due to distance from centerline.		Visual/noise screening as appropriate	
	High Street Park -	<1000		Low potential for use due to distance from centerline.		Visual/noise screening as appropriate	

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Mathews Landing Park -	<3500		No potential for use due to distance from centerline.	None
	Ash Street Park -	<1000		Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Swiss Park -	>4000		No potential for use due to distance from centerline.	None
	Eucalyptus Grove Park - AutoMall Pkway Station	>4000		No potential for use due to distance from centerline.	None
	Newark Sportsfield Park – AutoMall Pkway Station	Direct Hit		Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Alviso Park -	~0.4	mile	No potential for use due to distance from centerline.	None
	Baylands Park - 6(f)	~0.6	mile	No potential for use due to distance from centerline.	None
	Fairway Glen Park -	~0.25	mile	No potential for use due to distance from centerline.	None
	Lick Mill Park -	~0.25	mile	No potential for use due to distance from centerline.	None
	Ulistac Natural Area -	<0.5	mile	No potential for use due to distance from centerline.	None
	Fuller Park -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Agnew Park -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Montague Park -	<2000	feet	No potential for use due to distance from centerline.	None
I-880 Alignment					
Regional Parks	Oakland Estuary – I-880 - (West Oakland Station)	>0.25	mile	No potential for use due to distance from centerline.	None
	Arrowhead Marsh – I-880 - 6(f)	~1	mile	No potential for use due to distance from centerline.	None
	Alameda Creek Quarries Regional Recreation Area – I-880 - 6(f)	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function
	Garin Regional Park (Hayward) –	>5500	feet	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Dry Creek Pioneer Regional Park (Hayward) -	>4300	feet	No potential for use due to distance from centerline.	None
	Don Edwards San Francisco Bay National Wildlife Refuge -	~0.66	mile	No potential for use due to distance from centerline.	None
	Oyster Bay Regional Shoreline - I-880 - 6(f)	~2	mile	No potential for use due to distance from centerline.	None
	M. L. King Jr. Regional Shoreline - I-880 - 6(f)	~0.9	mile	No potential for use due to distance from centerline.	None
Local Parks					
I-880 Alignment - From Oakland to Union City (continued)	San Antonio Park and Recreation Center - 6(f)	>1000	feet	No potential for use due to distance from centerline.	None
	Garfield Park -	>1000	feet	No potential for use due to distance from centerline.	None
	Sanborn Recreation Center -	>2000	feet	No potential for use due to distance from centerline.	None
	Oakland Alameda County Coliseum - (Coliseum Station) -	<900	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Greenman Recreation Center -(Coliseum Station) - 6(f)	>2000	feet	No potential for use due to distance from centerline.	None
	Coliseum Garden - (Coliseum Station)	<900	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Tassafaronga Recreation Center -	>2000	feet	No potential for use due to distance from centerline.	None
	Brookfield Recreation Center -	>1000	feet	No potential for use due to distance from centerline.	None
	Stonehurst Park -	>1000	feet	No potential for use due to distance from centerline.	None
	Sobrante Park Recreation Area -	>1000	feet	No potential for use due to distance from centerline.	None
	Siempre Verde Park -	>1000	feet	No potential for use due to distance from centerline.	None
	Thrasher Park - (Direct hit.)	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Cherry Grove Park -	>2100	feet	No potential for use due to distance from centerline.	None
	Pacific Recreation Complex -	>1500	feet	No potential for use due to distance from centerline.	None
I-880 Alignment - From Oakland to Union City (continued)	Halcyon Park -	>1500	feet	No potential for use due to distance from centerline.	None
	Floresta Park -	>1500	feet	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Washington Manor Park -	>2000	feet	No potential for use due to distance from centerline.	None
	Edendale Park -	>6000	feet	No potential for use due to distance from centerline.	None
	Meek Park -	>1500	feet	No potential for use due to distance from centerline.	None
	Cherryland Park -	>1000	feet	No potential for use due to distance from centerline.	None
	John F. Kennedy Park -	>2700	feet	No potential for use due to distance from centerline.	None
	Sykwest Public Golf Course -	>3500	feet	No potential for use due to distance from centerline.	None
	Hayward Regional Shoreline - 6(f)	>6300	feet	No potential for use due to distance from centerline.	None
	Hayward Recreation District -	>7000	feet	No potential for use due to distance from centerline.	None
	Cannery Park -	>700	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Centennial Park – Direct Hit - 6(f)	Direct Hit		High potential for use due to distance from centerline.	Visual/noise screening as appropriate and for 6(f), replacement of resource in size and function
	Longwood Park -	>2500	feet	No potential for use due to distance from centerline.	None
	Birchfield Park -	>1200	feet	No potential for use due to distance from centerline.	None
	Eden Greenway – Direct Hit	Direct Hit		High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Sorensdale Recreation Center and Park –	>500	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	George E. Weekes Memorial Park -	>2000	feet	No potential for use due to distance from centerline.	None
	Nuestro Parquecito –	>1200	feet	No potential for use due to distance from centerline.	None
	Tennyson Park -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
I-880 Alignment – From Oakland to Union City (continued)	"Park Site" -	<900	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Mission Hills of Hayward Golf Course –	>600	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Bidwell Park and Community Center -	>1000	feet	No potential for use due to distance from centerline.	None
	Taper Park -	>4000	feet	No potential for use due to distance from centerline.	None
	El Rancho Verde Park -	<3300	feet	No potential for use due to distance from centerline.	None
I-880 Alignment - From Union City to San Jose	Fred Castro Park -	<200	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Decoto Plaza –	<1600	feet	No potential for use due to distance from centerline.	None
	C.F. Kennedy Park and Community Center – (Union City Station)	<100	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	William Cann Civic Center Park - (Union City Station)	>2000	feet	No potential for use due to distance from centerline.	None
	Arroyo Park -(Union City Station)	<900	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Seven Hills Park - (Union City Station)	<3500	feet	No potential for use due to distance from centerline.	None
	Quarry Lakes Land Bank - (Union City Station)	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Los Cerritos Community Park and Center -	<4000	feet	No potential for use due to distance from centerline.	None
	California Nursery Historical Park - (Union City Station)	<1500	feet	No potential for use due to distance from centerline.	None
	Niles Community Park and Community Center -	<1300	feet	No potential for use due to distance from centerline.	None
	Shinn Historical Park -	<500	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Centerville Community Park and Center -	>2500	feet	No potential for use due to distance from centerline.	None
	Fremont Central Park - 6(f)	tunnel		No potential for use since alignment is in tunnel.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Gomez Park -	>0.5	mile	No potential for use due to distance from centerline.	None
	Buena Vista Park -	>0.5	mile	No potential for use due to distance from centerline.	None
I-880 Alignment - From Union City to San Jose (continued)	Mission San Jose Community Park -	>1	mile	No potential for use due to distance from centerline.	None
	Blacow Park -	>1	mile	No potential for use due to distance from centerline.	None
	Irvington Community Park -	~0.6	mile	No potential for use due to distance from centerline.	None
	Grimmer Park -	<50	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Arroyo Agua Caliente Park -	~0.6	mile	No potential for use due to distance from centerline.	None
	Booster Park -	~0.6	mile	No potential for use due to distance from centerline.	None
	Lone Tree Creek Park -	~0.7	mile	No potential for use due to distance from centerline.	None
	Pinewood Park -	<200	feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	River Oaks Park (Coyote Creek) -	<0.5	mile	No potential for use due to distance from centerline.	None
	San Jose Municipal Golf Course -	<0.5	mile	No potential for use due to distance from centerline.	None
	Bernal Park -	<0.5	mile	No potential for use due to distance from centerline.	None
	Columbus Park and Guadalupe Gardens - (San Jose Station)	<150	feet	High potential for use due to distance from centerline.	Visual/noise screening as appropriate
	Ryland Park -	~0.6	mile	No potential for use due to distance from centerline.	None
	St. James Park - (San Jose Diridon Station) - 6(f)	~0.75	mile	No potential for use due to distance from centerline.	None
	McEnery Park (San Jose Diridon Station)	<0.33	mile	No potential for use due to distance from centerline.	None
Northern Alignment Option					
Northern Tunnel Option	Anderson Lake	~3.6	Mi	No potential for use due to distance from centerline.	None
	Henry Coe Park	~2.4	Mi	No potential for use due to distance from centerline.	None
Tunnel Under Park Option	Anderson Lake	<1.8	Mile	No potential for use due to distance from centerline.	None
Minimize Tunnel Option	Anderson Lake -	<2.5	Mile	No potential for use due to distance from centerline.	None

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Henry Coe Park	<150		High potential for use since alignment is in tunnel.	Visual/noise screening as appropriate
	George J. Hatfield SRA	<4	Mile	No potential for use due to distance from centerline.	None
	(End) Alignment 2				
	Mc Connell SRA	~1	Mile	No potential for use due to distance from centerline.	None
	(End) Alignment 3 & 4				
	Mc Connell SRA	~0.2	Mile	No potential for use due to distance from centerline.	None
	(End) Alignment 5				
	Mc Connell SRA	<2	Mile	No potential for use due to distance from centerline.	None
HST Stations					
Transbay Terminal	In Tunnel			No potential for use due to distance from centerline.	None
4th and King	In Tunnel			No potential for use due to distance from centerline.	None
Millbrae	Central Park – Millbrae	~0.5	Mile	No potential for use due to distance from centerline.	None
	Bayside Manor Park – Millbrae	>0.5	Mile	No potential for use due to distance from centerline.	None
	Rotary Park – Millbrae	>0.25	Mile	No potential for use due to distance from centerline.	None
	Village Park – Burlingame	>1	Mile	No potential for use due to distance from centerline.	None
	Laguna Park – Burlingame	~1	Mile	No potential for use due to distance from centerline.	None
Redwood City	Mezes Park – Redwood City -	<0.5	Mile	No potential for use due to distance from centerline.	None
	Stafford Park – Redwood City -	<1	Mile	No potential for use due to distance from centerline.	None
	Hoover Park – Redwood City -	<1	Mile	No potential for use due to distance from centerline.	None
	Andrew Spinas Park – Redwood City -	~0.8	Mile	No potential for use due to distance from centerline.	None
	Red Morton Community Park – Redwood City -	<1	Mile	No potential for use due to distance from centerline.	None
	Hawes Park – Redwood City -	~1	Mile	No potential for use due to distance from centerline.	None
Palo Alto	El Camino Park – Palo Alto -	<150	Feet	Medium potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate

Table 3.3-1 Summary of Potential Impacts and Probable Measures to Minimize Harm to Section 4(f) and 6(f) Recreation Resources for Bay Area To Merced					
	Sections 4 (f) and 6(f) Recreation Resources Within 900 feet	Distance from Centerline in Feet		Potential for (Direct/Construction) Use High, Medium, or Low ⁷	Probable Measures to Minimize Harm
	Cogswell Plaza – Palo Alto -	<1000	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
Santa Clara	Marsalli Park – Santa Clara -	<750	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Fremont Park – S.C. -	~0.7	mile	No potential for use due to distance from centerline.	None
	Civic Center Park - Santa Clara	~0.75	miles	No potential for use due to distance from centerline.	None
West Oakland	in tunnel			No potential for use due to distance from centerline.	None
12th St/City Center.	in tunnel			No potential for use due to distance from centerline.	None
Oakland Coliseum					
	Oakland Alameda County Coliseum -	~900	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	Greenman Recreation Center -	~2000	feet	No potential for use due to distance from centerline.	None
Union City	Coliseum Garden -	~900	feet	Low potential for use or constructive use due to distance from centerline.	Visual/noise screening as appropriate
	C.F. Kennedy Park and Community Center –	>1000	feet	No potential for use due to distance from centerline.	None
	William Cann Civic Center Park -	>2000	feet	No potential for use due to distance from centerline.	None
	Arroyo Park -	<2000	feet	No potential for use due to distance from centerline.	None
	Seven Hills Park -	<4000	feet	No potential for use due to distance from centerline.	None
	Quarry Lakes Land Bank -	<3600	feet	No potential for use due to distance from centerline.	None
	California Nursery Historical Park -	>1	mile	No potential for use due to distance from centerline.	None
AutoMall Pkwy Station					
	Don Edwards San Francisco Bay Wildlife Refuge --	~0.6	mile	No potential for use due to distance from centerline.	None
	Eucalyptus Grove Park -	~2	mile	No potential for use due to distance from centerline.	None
	Newark Sportsfield Park –	~1.8	mile	No potential for use due to distance from centerline.	None
San Jose	Biebrach Park – San Jose -	~0.7	Mile	No potential for use due to distance from centerline.	None